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FOREST HEALTH
INFORMATION ALERT
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PINYON NEEDLE SCALE
IN THE PRESCOTT AREA

Pinyon needle scale, a native insect which defoliates and kills pinyon pine is again active in the Prescott area. Pinyon needle scale can be found spread over thousands of acres from Prescott Country Club to the Prescott Basin, and to Williamson Valley all the way up to Hootenanny Holler.

Two of the areas with high populations of this insect include the Thumb Butte area and Granite Oaks in Williamson Valley.



Female scales have emerged from their over-wintering stage on the needles in both of these areas. Very noticeable clusters of yellow eggs held together in loose, white, cottony webbing have been laid by the females mainly in branch crotches, along the underside of branches, on the trunk and at the base of the tree. The females die shortly after egg laying is completed.

Heavily infested pinyons can be easily detected by the yellow or orange discoloration of the older needles towards the back of the branch. The needles are covered with small, black, bean-shaped scales which pierce the foliage and remove the sap, causing the needles to discolor, dry, and fall off. Small trees may be killed within a few years; whereas, larger trees may lose one or more branches and may take years to die. Mortality of larger trees may occur on drier sites during droughty periods.



Most likely to die from the effects of the insect are pinyons growing on drier rocky outcrops, south and west facing slopes and transitional zones between pinyon-juniper and grassland vegetation types.

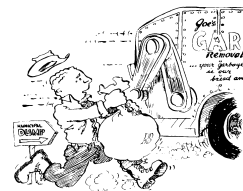
Control of this stage of the insect involves Step 1: Washing the eggs off branches and trunk with a garden hose equipped with a high pressure nozzle and allowing eggs and litter one to two days to dry. Step 2: Raking eggs, litter and debris out from under the tree, and Step 3: Disposing of the eggs in plastic garbage bags. Raking may not be practical if heavy brush, rocks or other material is present under the tree. However, washing the eggs off the tree is still recommended.



Step 1 (Forest Service Drawings)



Step 2



Step 3

“Removal of the eggs from your pinyons will be simplified if you have already treated your vegetation for fire prevention reasons”.

“Repeated washings may be necessary since not all eggs will be laid at once.” If you wash too late, eggs will have hatched and the young scales (crawlers) will have moved to the needles where they can be treated with insecticides. Egg hatch usually occurs in May, providing a long period of time for egg removal. However, heavy egg hatch was noted in the Williamson Valley area last year at the end of April—so don’t wait!

Unless there are local water restrictions, consider slow, deep, and infrequent watering of your infested pinyons nearest your home, starting as soon as your soils dry out, with a soaker hose placed around the drip line of the tree. Continue watering until “monsoon” rains are well established.

Also refer to the pinyon needle scale publication issued by the Cooperative Extension at: <http://cals.arizona.edu/pubs/insects/az1315.pdf> and their watering brochure at: <http://cals.arizona.edu/pubs/water/az1298.pdf>.

For further information about this insect, or other forest health concerns in the Prescott area, contact: Bob Celaya, Forest Health Specialist, Office of the State Forester (602) 771-1415